

PROCEEDINGS
OF THE
CALIFORNIA ACADEMY OF SCIENCES
FOURTH SERIES

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MARCH 26, 1915

I.

**REPORT OF THE PRESIDENT OF THE ACADEMY
FOR THE YEAR 1914**

By C. E. GRUNSKY
President of the Academy

MEMBERSHIP

The present total membership in the Academy is 447, made up of:

Honorary Members	30
Life Members	83
Resident Members	334

During the year 1914 there was an accession of 10 new members, and the Academy lost by death 10, by resignation 37, and by being dropped for arrearages in dues, 11. The net loss in membership during the year has been 48.

The losses by death were:

W. C. Barnard	Resident Member.....	June 5,	1914
Prof. Samuel B. Christy....	Life "	November 30,	"
F. W. Dohrmann	Resident "	July 18,	"
Chas. Fuchs	" "	June 11,	"
Dr. Theo. N. Gill.....	Honorary "	September 25,	"
Prof. E. S. Holden	Life "	March 16,	"
C. A. Hooper	Resident "	July 12,	"
John H. W. Husing	" "	January 31,	"
Thomas Magee	" "	May 30,	"
J. G. Spaulding	" "	March 29,	"

March 24, 1915

DONATIONS

The donations to the Museum during the year have been many and valuable, and presage what may be expected when adequate housing facilities are provided. A detailed list of the accessions to the Museum is given in the appendix to the Director's report. Attention may here be called to a few of the more notable donations and accessions.

SPECIAL ACCESSIONS TO THE MUSEUM AND ACADEMY'S
EQUIPMENT

1. Through the generosity of Mr. Wm. M. Fitzhugh, of San Francisco, the Academy has received as a loan deposit the entire collection of Indian baskets, pottery, blankets, and miscellaneous objects, assembled by the late Professor and Mrs. T. S. C. Lowe of Pasadena, Cal. This collection comprises 1430 baskets and more than 300 pieces of pottery and other objects of Indian manufacture or use.

Mr. Fitzhugh has generously offered to meet all the expenses of installing these collections in the Museum in the most approved cases, and all expenses incident to the proper labelling and cataloguing of the specimens.

It is easy to see that this will make one of the most attractive exhibits in our new Museum building.

2. At the instance of Mr. Otto von Geldern, Mr. Thomas Davidson, son of the late Professor George Davidson, long an active member and sometime President of the Academy, has generously donated to the Academy a large collection, comprised in 24 large boxes, of minerals and other geological specimens.

3. Mr. Chas. E. Green, member of the Board of Trustees, donated to the Academy a Beck binocular microscope with eleven objectives (ranging from 4 inch to 1/25 inch), several eye pieces, and numerous accessories. The original cost of this microscope was over \$1000. Although not a modern instrument it is nevertheless valuable.

4. Dr. Robert E. Coker, Director of the United States Bureau of Fisheries Biological Station at Fairport, Iowa, and acting for the Bureau, has donated to the Academy a collection of Unionidæ or freshwater mussels containing 423 speci-

mens, representing 116 species, or practically all the species occurring in North American waters.

5. Perhaps the most important gift which the Museum has received within the year is that of the Henry Hemphill collection of marine, freshwater and land shells, presented to the Academy by Mrs. Charlotte Hosmer, daughter of Mr. Hemphill.

This collection contains between 60,000 and 70,000 specimens representing 12,000 to 15,000 different species. Dr. Wm. H. Dall, the most distinguished conchologist in America, if not in the world, has pronounced it to be without doubt "the best and most complete collection of Pacific coast shells - - - that is to be found anywhere except in the National Museum" at Washington.

The making of this immense collection engaged the attention of Mr. Hemphill during practically all the years of his long and useful life.

The collection has been formally turned over to the Academy and is now stored in 20 large boxes in the rear room on the third floor of the Security building, 343 Sansome street.

6. A collection of 34 mounted specimens representing 24 species of winter birds of Marin County, California, presented by Mr. John W. Mailliard, of the Board of Trustees. These are meant to serve as a beginning of a series of seasonal groups of birds which it is hoped will be installed in the Museum soon after the completion of the building.

7. A collection of 17 bird skins obtained by Mr. John Rowley in Kern County in October and November. Among these are two specimens of the ferruginous hawk, a very rare species.

8. Two fine specimens of the Javanese peacock, presented by Mr. Lansing K. Tevis, of San Francisco.

9. A collection of 56 mammal skins obtained by Mr. Rowley in October and November in Kern County, Cal.

10. During the year there have been added to the collections of the department of herpetology a total of 806 reptiles and amphibians. Of these, 105 resulted from exploration in Arizona and California by John I. Carlson, 248 by gift from various parties, and 453 by exchange.

11. The large collection of beetles belonging to the late Charles Fuchs, for many years the Academy's assistant curator of entomology, has been deposited with the Academy by Mrs. Fuchs, and an effort is being made to secure funds for its purchase.

The additions to the herbarium have been many and important, representing hundreds of specimens among which are many genera and species new to the herbarium. Among the most important additions may be mentioned the following:

12. A collection of 278 specimens representing 28 genera and 75 species of ferns chiefly from Massachusetts and the vicinity of Washington, D. C., donated by Mr. H. W. Henshaw of Washington, D. C.

13. A very large collection, especially rich in willows, made by Miss Eastwood in the Yukon region during the spring and summer of 1914.

14. Considerable collections of plants made by Miss Eastwood in March in Kern, Tulare and Contra Costa counties, California.

15. Large miscellaneous collections sent in from time to time by Mr. L. E. Smith, from the upper Sacramento Valley.

16. Numerous specimens, chiefly exotics, have been donated from time to time by Mr. G. P. Rixford.

17. Large collections of Japanese and Chinese plants have been received from Dr. Fred Baker and Mrs. Charlotte Baker, of San Diego, Cal.

18. A great many specimens adding many families, genera and species to the herbarium, have been received from the Director of the Philippine herbarium.

Miss Eastwood, the curator of botany, has been indefatigable in receiving and caring for the collections. In mounting the specimens, she has received great assistance from Mrs. Marian L. Campbell who has most generously given to the herbarium a day or more of her time nearly every week during the fall and winter.

Miss Eastwood conducts a botanical club of about 50 members which meets usually about once a week. She also meets once a week with the park gardeners and gives them instruction regarding the plants under their care. This is educational work of real value and should be encouraged.

ACCESSIONS TO THE LIBRARY

There have been the usual accessions to the library resulting from purchase, subscriptions to periodicals, and from exchanges. There have also been many donations as set forth in the appendix to the Director's report. Only a few of the more important donations will be mentioned here.

1. A collection of about 200 volumes and pamphlets from the late Professor William Eimbeck, received through Captain Ferdinand Westdahl of the United States Coast and Geodetic Survey.

2. Through the courtesy of Senator Geo. C. Perkins the library now receives regularly the Congressional Record, as issued.

3. The Director has presented to the library a bound set of the Proceedings of the Washington Academy of Sciences. This set comprises Volumes I-XIII, and is complete.

4. Mr. Horace Davis has presented to the library a complete original set of the publications of the Academy. The volumes are handsomely and substantially bound and constitute the most perfect set of the Academy's publications which it possesses.

5. A large number of pamphlets from the Gray Herbarium, among them many of the papers by Professor Asa Gray and Professor Sereno Watson.

6. Thirty-one numbers of the Journal of Morphology, from the Wistar Institute.

7. About 40 early numbers of the Proceedings of the California Academy of Sciences from Professor W. G. Farlow.

PUBLICATIONS

The Academy has published during 1914 five papers: One is No. X (Proc., 4th Ser., Vol. II, Part 1) of the series relating to the Expedition to the Galapagos Islands, and the other four are in continuation of Vol. IV, Fourth Series of the Proceedings, as follows:

The Gigantic Land Tortoises of the Galapagos Archipelago.

By John Van Denburgh. Fourth Series, Vol. II, No. X, pp. 203-374, plates 12-124. Published September 30, 1914.

Report of the President of the Academy for the year 1913; and George Davidson. Fourth Series, Vol. IV, Nos. I and II, pp. 1-13. Published April 8, 1914.

Neocene Record in the Temblor Basin, California, and Neocene Deposits of the San Juan District, San Luis Obispo County. By Frank M. Anderson and Bruce Martin. Fourth Series, Vol. IV, No. 3, pp. 15-112, plates 1-10. Published December 30, 1914.

The Fauna of the Siphonalia sutterensis Zone in the Roseburg Quadrangle, Oregon. By Roy E. Dickerson. Fourth Series, Vol. IV, No. 4, pp. 113-128, plates 11 and 12. Published December 30, 1914.

Reptiles and Amphibians of the Islands of the West Coast of North America. By John Van Denburgh and Joseph R. Slevin. Fourth Series, Vol. IV, No. 5, pp. 127-152. Published December 30, 1914.

The Pocket Gopher of the Boreal Zone on San Jacinto Peak. By J. Grinnell and H. S. Swarth. Fourth Series, Vol. IV, No. 6, pp. 153-160. Published December 30, 1914.

The Academy also published on December 30, 1914, Title page and Contents, Vol. I, Mathematics-Physics, Third Series; Title page, Contents and Index, Vol. II, Geology, Third Series; Title page, Contents and Index, Vol. IV, Zoology, Third Series; Title page, Contents and Index, Vol. I, Fourth Series; and Title page, Contents and Index, Vol. III, Fourth Series. These complete in this respect all the volumes to date.

LECTURES

During the year 1914, 19 free lectures have been delivered at the stated meetings of the Academy, as follows:

- FEBRUARY 2. "Poisonous reptiles of the Pacific Coast."
Dr. John Van Denburgh, Curator of Herpetology.
- FEBRUARY 12. "Necessity for care in the determination of type specimens."
Bruce Martin, Asst. Curator of Invertebrate Paleontology.
- MARCH 2. "Fertilization of the Smyrna Fig."
G. P. Rixford.
- MARCH 16. "The last appearance of the Leonids."
C. E. Grunsky, President of the Academy.

- APRIL 6. "Specialization in the Protozoa and suggestions of Metazoan Origin."
Prof. C. A. Kofoed, University of California.
- APRIL 20. "Origin of petroleum."
F. M. Anderson, Curator of Invertebrate Paleontology.
- MAY 4. "Geological history of California."
Dr. John Perrin Smith, Stanford University.
- MAY 18. "Myths and songs of the Sierras."
Edward W. Gifford, University of California.
- JUNE 1. "Effect of a strictly vegetable diet on certain animals."
Dr. J. Rollin Slonaker, Assistant Professor of Physiology, Stanford University.
- JUNE 15. "The Alaska fur-seal herd and its proper management."
Dr. Barton W. Evermann, Director of the Museum.
- JULY 6. "Status of California's duck population."
Dr. Harold C. Bryant, Assistant Curator of Birds, Museum of Vertebrate Zoology.
- JULY 20. "Present conditions and future need of California's wild life."
Dr. Walter P. Taylor, Curator of Mammals, Museum of Vertebrate Zoology.
- AUGUST 17. "Some experiences in Alaska".
Alice Eastwood, Curator of Botany.
- SEPTEMBER 21. "Life history of the edible crab."
Dr. Frank W. Weymouth, Assistant Professor of Physiology, Stanford University.
- OCTOBER 5. "Life of cells outside the body."
Dr. S. J. Holmes, Professor of Zoology, University of California.
- NOVEMBER 16. "The census of the fur-seal herd."
Geo. A. Clark, Academic Secretary, Stanford University.
- DECEMBER 7. "Summer on the Forrester Island, Alaska, bird reservation."
Dr. Harold Heath, Professor of Zoology, Stanford University.
- DECEMBER 21. "Recent progress in determining the motion of bodies of the Solar System."
Dr. A. O. Leuschner, Professor of Astronomy, University of California.

THE DIRECTOR OF THE MUSEUM

The Academy has been fortunate in securing the services of Dr. Barton W. Evermann, who early in the year was appointed Director of the Museum to fill the vacancy caused by the resignation of Mr. G. P. Rixford. He came to us from

Washington, D. C., but not as a stranger, he having at one time been a resident of California and having in recent years had official duties on this coast by reason of his connection with the U. S. Bureau of Fisheries in various capacities since 1891, and in charge of the Alaska Fisheries Service since 1910. He has already rendered valuable service to the Academy and will have an enlarged field of usefulness when the Academy's new building in Golden Gate Park becomes available.

THE NEW MUSEUM BUILDING

A year ago it was confidently expected that this new building would be completed before the close of 1914. This has not been realized. It was found during the progress of construction that the principal contractors were not using the full amount of cement called for by their contract, that certain undesirable modifications of the specifications had been orally assented to by the agents of the Academy and that in consequence of these circumstances there was some doubt relating to the wisest procedure to remedy the resulting structural defects in the building. The complications resulting from this situation have interfered with the progress on the building. The matter is not yet finally adjusted but it is expected that a course of procedure will soon be determined on resulting in proper protection of the Academy's interests.¹

GENERAL ACTIVITIES

The work done in the various departments under direction of the curators of these departments will be set forth in the reports of the Director of the Museum and of the curators, and needs no special comment in this report, except to state that the earnest and able work being done is gratifying and deserves the encouragement of this community, of the State, and of the entire Pacific slope. The field in which the Academy is active is large. The Academy is in need of funds for better covering this field and for extending its usefulness.

It is gratifying, therefore, to be able to give special acknowledgment to such donations as the valuable Henry Hemphill collection of shells and the loan of the Fitzhugh Collection of

¹ Since the above was written all these matters have been adjusted, building operations have been resumed, and it is now believed the building will be completed early in July.

Indian baskets and stone implements, which latter will be placed in the new building and properly displayed without cost to the Academy.

But the time is ripe for a proper and adequate endowment for the work which the Academy has in hand. There is immediate need for a fund of about \$1,000,000 to enlarge the new building in the Park to its intended ultimate dimensions and to provide for a proper display of the material which is available in abundance, and which will quickly find its way to such a building when it becomes known that attractive housing facilities have been provided.

A commission which the Curator of the Department of Botany, Miss Alice Eastwood, received, to make a study and collection of willows in Alaska, resulted in a trip by her last spring of which she has given an interesting account at one of the stated meetings. A large addition of Alaskan flora to the Herbarium of the Academy, is to be noted in this connection.

The Curator of the Department of Invertebrate Paleontology, Mr. F. M. Anderson, is at present away on a year's leave of absence in South America on private business and has taken with him Mr. Bruce Martin. His stay in South America will no doubt result in benefit to the Academy's collections as he has requested and is receiving some financial aid in making collections for the Academy.

The place made vacant by the resignation of the Assistant Curator, Mr. Bruce Martin, has been filled by the appointment of Dr. Roy E. Dickerson.

Death has claimed Mr. Chas. Fuchs who was for many years Assistant Curator and an able worker and diligent collector in the Department of Entomology. The private collection of Mr. Fuchs has been added to the Museum where it is being stored and cared for until otherwise disposed of. In his death the Academy has sustained a distinct loss. No one has yet been appointed to take his place.

The preparation of material for display exhibits has been continued throughout the year and it is along this line—measured by the cost of the work—that the Academy has been most active. This will appear more fully in the report of the Director.

In conclusion, on behalf of the officers of the Academy, I desire to express their gratification in the interest manifested by so many of the members and in the cordial effort put forth to advance the best interests of the Academy, which continues, as in the past, to devote itself to the education of our people along lines of natural history, science and related matters.

I desire to extend to the officers of the Academy thanks for their able and cordial cooperation in Academy affairs and for the many personal sacrifices which they have been called on to make on behalf of the Academy.